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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,747	12/19/2000	Anujan Varma	UC2000-138-2	5584

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EXAMINER	
MILLS, DONALD L	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/741,747	VARMA ET AL.	
	Examiner	Art Unit	
	Donald L Mills	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4-10* is/are allowed.

6)☒ Claim(s) *11-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Shum (US 5,963,542).

Regarding claim 11, Shum discloses an asynchronous transfer mode cell loss estimator, which comprises:

Determining a point at which the slope of the loss curve changes in response to transmitting the frames of an actual or simulated traffic source (Referring to Figures 1 and 4, the cell loss rate ruing a time slot is calculated from the formula:

$$\sum_{(i,j)\in S(B,N,\Delta)} LR(L=i,\ J=j)\,Pr(L=i,\ J=j)$$

which is utilized in calculating the steady state loss probability (a point at which the slope of the loss curve changes in response to transmitting of frames). See column 6, lines 41-60.)

Computing the loss rate for said point (Referring to Figures 1 and 4, the loss rate is calculated over a number of discrete points. See column 6, lines 41-60.)

Repeating steps a and b over the range of buffer sizes β being characterized (Referring to Figures 4 and 5, the loss rate is calculated over a cell buffer size **B** of the multiplexer. See column 5, line 44.)

Exploiting piecewise linearity of the loss curve between said loss curve change points to characterize the remainder of the loss curve (Referring to Figures 1 and 4, the steady state cell loss probability is a result of the calculation of discrete points in an equation and any resultant changes between points which by definition further characterizes the loss result. See column 7, lines 3-6.)

Regarding claim 12, Shum discloses *the loss rate for each value of buffer size B need not be computed in order to characterize the loss curve for a particular transmission rate ρ* (Referring to Figures 1 and 4, the steady state cell loss probability is computed based upon a buffer size B and a transmission rate C. See column 5, lines 35-48.)

Regarding claim 13, Shum discloses *finding a loss in a busy period with no prior loss, or a change in the number of busy periods experiencing losses, in response to changes in buffer size B* (Referring to Figures 1 and 4, the on-off model corresponds to a correlated burst on-off model, during which the cell loss rate is calculated in response to corresponding buffer size B. See column 7, lines 29-31.)

Regarding claim 14, Shum discloses *wherein the largest buffer size considered is equal to the corresponding burstiness value σ(ρ)* (Referring to Figures 1 and 4, the incoming traffic rate to buffer **106** is greater than the bandwidth of communications channel **110**. See column 2, lines 36-40.)

Regarding claim 15, Shum discloses *wherein the traffic source comprises a data stream selected form the group of data streams consisting of multimedia data streams, elementary video streams, and MPEG-2 transport streams* (Referring to Figure 1, transmitting voice over ATM. See column 15, lines 13-15.)

Regarding claim 16, Shum discloses *computing loss curves across a range of given transmission rates ρ, to provide three-dimensional information about loss rates with respect to buffer size B and transmission rate ρ* (Referring to Figures 1 and 4, the steady state cell loss probability is computed based upon a buffer size B and a transmission rate C. See column 5, lines 35-48.)

Allowable Subject Matter

3. Claims 4-10 are allowed.

Response to Arguments

4. Applicant's arguments with respect to claim 11-16 have been considered but are moot in view of the new ground of rejection.

Conclusion

5. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

DLM

December 11, 2004

JOHN PEZZLO
PRIMARY EXAMINER